

# STUDENT SAFETY TECHNOLOGY DESIGN COMPETITION

TUESDAY, JUNE 19, 2007

## Session STUDENT SAFETY TECHNOLOGY DESIGN COMPETITION: FINALIST ORAL PAPER PRESENTATIONS

Time: 2:00 pm - 5:00 pm  
Location: Salle Rhone 3

The Collegiate Student Safety Technology Design Competition gives young scholars from Asia-Pacific, Europe, and North America an exciting opportunity to design, build, and demonstrate a cost effective conceptual scale model of a vehicle safety technology.

Teams consisting of university level seniors and/or graduate students, guided by one faculty advisor, submitted a 300-word abstract related to one of the eight global vehicle safety research priorities. The abstracts were reviewed by a panel of safety engineers representing leaders in the field of automotive/vehicle safety in each of the three geographical regions. A maximum of five teams from each region were invited to participate in the regional competition. At the regional competition, the teams were required to design and build a scale model prototype of a vehicle safety technology. Each team also prepared a report of the design and a corresponding presentation. A panel of safety experts visited each team's school in early 2007, evaluated the designs, and selected no more than three team finalists per region.

The finalists' prototype devices are on display in the Exhibition Hall. Please see the exhibit listings and their location on pages 60&61 (booths 17-19). Attendees are encouraged to review the displays and demonstrations. An international panel of judges, made up of vehicle safety engineering experts from around the globe, will select one first-place winner and one runner up, both of whom will receive an award and recognition for their achievements during the Closing Ceremony on Thursday.

The International finalists are:

### ASIA-PACIFIC, REGION 1

#### Regional

Coordinator: Kazuro Iwata, JSAE, *Japan*

Judges: Nobuhiko Takahashi, *Nissan Co., Japan*  
Kenji Wani, *Ministry of Land, Infrastructure and Transport, Japan*  
Hideaki Kubota, *Ministry of Land, Infrastructure and Transport, Japan*

Team #1: Kanazawa University

#### Team Members:

Eiji Hirano, Kyohei Takahashi, Yasuyoshi Maeda, Takehiko Masaki, Futoshi Mizuo, Kouichiro Saito

Project Title: Investigation of the Most Suitable Materials and Structure in Shock Absorption Structure

Team #2: Meijo University ITS Lab

#### Team Members:

Shin-ya Tagawa, Takahiro Iwakura, Sadayuki Tsugawa

Project Title: Evolutionary Vehicle-to-Vehicle Communications with Brake Light and Computer Vision for Driver Assistance

### EUROPE, REGION 2

#### Regional

Coordinator: Dominique Cesari, *Chairman of EEVC*

Judges: Wojciech Przybyski, *Poland*  
Konstantinos Spentzas, *Greece*  
*Members of the EEVC Steering Committee*

Team #1: Institut fUr Fahrzeugtechnik Trier, Germany

#### Team Members:

Nils Carstengerdes, Peter Bach, Jana Walkowiak, Benjamin Becker, Thomas Herold

Project Title: System to Measure and Evaluate the Seat Belt Usage Rate in Coaches

Team #2: Loughborough University, United Kingdom

#### Team Members:

Joanna Styles, Jo Bennett, Pinar Boyraz, Memis Acar

Project Title: INCAR: Integrated Child and Adult Restraint System

Team #3: Louis Pasteur University, France

#### Team Members:

Violaine Tinard, Nicholas Bourdet, Caroline Deck, Remy Willinger

Project Title: Active Pedestrian Head Protection Against Windscreen

### NORTH AMERICA, REGION 3

Regional

Coordinator: Arthur Carter, *National Highway Traffic Safety Administration, United States*

Judges: John Hinch, Stephen Ridella, Arthur Carter, *National Highway Traffic Safety Administration, United States*

Team #1: California Polytechnic State University, United States

Team Members:

Daniel Murphy, Justin Carpenter, Duane Howard, DJ Parsons, Peter Schuster, Charles Birdsong

Project Title: System Integration of a Pre-Crash and Crash Avoidance Test Vehicle

Team #2: Stanford University, United States

Team Members:

Judy Hsu, Shad Laws, RK MacLean, Jared Brown

Project Title: A Feel for the Road: Tire Force Characterization for Predictive Stability Control

Team #3: Virginia Tech - Wake Forest University Center for Injury Biomechanics, United States

Team Members:

Scott Gayzik, Amber Bonivitch, Kerry A. Danelson, Joel Stitzel

Project Title: A Biofidelic Lung Surrogate for Anthropomorphic Test Devices to Predict Pulmonary Contusion Following Motor Vehicle Crash